

both around and within the joint, should be cut through, and the extremities of the bones fairly freed and exposed.

"3. *The patella should be taken away in all cases, whether diseased or not,* and then the section of the bones, well thrust out in front, should be made with 'Butcher's saw' from behind forward, due attention being paid to the axis of the thigh-bone at the time of its division.

"4. *All bleeding vessels should be tied, or any that have sprung and retracted should be drawn out and secured,* so as to guard against intermediary hemorrhage.

"5. *While the patient is yet on the operating table the limb should be placed in the horizontal position, either by gentle and steady traction, combined with pressure of the cut surfaces of the bones backwards, or, if necessary, the division of the hamstring tendons.* Their support behind, in every case, I look upon as of great value, therefore their section must be looked upon as a last expedient towards straightening the limb.

"6. *During the adjustment of the bones great caution should be exercised, that their surfaces be throughout their extent in contact, and that no soft parts intervene.* The flaps should be then laid down, and connected by suture closely throughout their transverse division, while the lateral incisions should be brought together only at their extremities by one or two points, and the central portion of each, that corresponding to the division of the bones, should not be brought in contact, but dressed lightly with lint soaked in oil, thus securing a ready outlet for the escape of fluids. The extremity should next be cautiously laid upon 'Butcher's box splint,' padded to the natural configuration of the limb, its sides elevated, footboard applied, suitable pads introduced, and then the anterior splint laid on, taking the place of the assistant's hand, which, from the first, restrained the femur from projecting forward; then the straps buckled, the waist-band applied, and the patient may, with safety, be removed to his bed. The bed should be prepared in this way, and consist of a couple of hair mattresses laid one upon the other, evenly supported, and intervening between the upper one and the sheet a folded blanket, feather pillows for supporting the head and shoulders; the bed should be, likewise, moderately warmed, so as to prevent the patient being chilled when put into it.

"7. *The limb should not be disturbed for several days;* the length of time depending a good deal on the season of the year when the operation is performed, whether it be in the heat of summer or the cold of winter. After five or six days it may be necessary to let down the sides of the box splint, to sop up discharge, change lateral pads and soiled dressings, &c. By the apparatus named the facilities for cleansing the limb are so efficient that it may not be requisite to lift the member from its support for even so long a period as three weeks, as evidenced in my own practice. Should, however, it be considered expedient to change all the dressings, the anterior splint should be steadily held back by an assistant, and the limb pressed up to it, thus guarding against any starting of the femur forwards, or displacement laterally, when lifted from its bed. When the box is prepared, freshly arranged, the limb, controlled after the manner mentioned, should be laid down, the side splints elevated, footboard secured, and the straps over the anterior splint first tightened so as to maintain it in that position, from which it was never suffered to change. I would impress this advice still further: if the straps be unloosed for any purpose, *the hand of an assistant should steadily keep the anterior splint in its position, and well pressed back, until the artificial support is again brought to bear upon it, and fastened.*

"8. *In cases where large abscesses form in the vicinity of the excised joint, or up along the thigh, Chassaignac's drainage tubes may be used with the best hopes of success.*

"9. *The free administration of stimulants and sedatives, imperatively demanded in all cases of excision, regulated, to a certain extent, by age, sex, temperament, and habit."*

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25. *Employment of Plaster of Paris Bandages for Dressing Stumps after Amputation.*—Dr. TRANEUS, of Sweden, states (*Edinburgh Med. Journ.*, Nov., 1860) that during the last two years many successful experiments have been made

at the Infirmary of Uddevalla, upon the application of fixed dressings of gypsum to amputated limbs. The dressings were applied as follows:—

“When the hemorrhage has been stayed, the threads of the ligatures are not to be confined as usual, but kept together, and led in the shortest way to the margin of the wound. Instead of plaster dressings, strips of cotton, impregnated with dry plaster of Paris, or gypsum, and dipped in water just before use, are then applied; that is, the limb may be, as usual, enveloped in a compressing roller 12 or 15 feet long, impregnated with gypsum on both sides. The tourniquet may either be removed, or, if that is not advisable, applied to the main artery, at such a distance from the wound that compression is possible. Six or eight straps, impregnated with gypsum, two or three inches broad and a foot long, are then laid transversely over the wound, crossing from one side to the other, so as to keep the edges close together, only taking care that the ligatures be first laid hanging loose over the margin under those bands. Finally, another roller, as long as the first, and impregnated in the same way, may be laid over all these, to retain the whole dressing in its place. When this dressing has dried, it is not to be disturbed for three or four days; but, when it is wet through over the sore with the discharge from the wound, an opening is to be made with a knife and pincers or scissors, at points corresponding to the seats of the ligatures, whereby the matter from the wound may be removed, and its surface, if necessary, cleansed, and the ligatures, as usual, attended to. These little openings, of an inch in diameter, can easily be closed by any common plaster or ointment, and allow of the wound being inspected daily, especially as they may be enlarged by cutting away more of the dressing during the three or four following weeks. After this time the atrophy of the limb enables the surgeon to pull off the whole dressing like a cap, when the wound is generally healed.

“The superiority of this method of dressing consists in the following, viz.:—

“1st. The dressing is agglutinative in itself and in regard to the surface of the skin.

“2d. It is not liable to be affected or injured by any discharge from the wound.

“3d. It permits of being opened with the greatest facility.

“4th. It is not at all injurious to the surface of the wound.

“To obtain the necessary gypsum sufficiently calcined, there should be procured a large piece of the gypsum commonly known in commerce, which is almost as hard as white marble, gray in colour and crystalline in texture; this should be broken into pieces of not above one cubic inch, spread in a single layer on an iron plate, in an oven, and exposed to a common oven heat, at least one and a half hour, till it becomes white and easily breaks down into powder; in this condition it should be preserved in a jar, with a ground glass stopper, and pulverized when required.

“Rub the gypsum prepared as above, upon both sides of two twelve feet long roll bandages (which are afterwards loosely rolled together), and six to eight linen bandages, one and a half foot long and two inches broad. These, with a basin of water, are to be placed as near the patient as is deemed convenient; and each bandage and stripe, just before the application, must be thoroughly wetted. One of the roll bandages is first applied, in descending turns, each turn, at least, half covering the other, as a ‘contentiv-binda,’ in, at least, two layers. The wound being a clean one, the edges, drawn together as close as possible, are fastened with ‘*suturæ nodosæ*,’ according to circumstances, but the extremities of the ligatures are not fastened as commonly, upwards on the stump, *but are laid along the line of the wound*—the reason for this will be afterwards explained. The provided stripes are now, in succession, taken at both ends, immersed in water, and their middle applied across the wound, after which, the ends are firmly pressed upwards on the stump, so that the wound is kept together by a double layer. It is preferable so to apply them, that one or two small openings are left between the edges of the stripes, for examining the state of the wound. Outside these stripes is afterwards applied a gypsum wet roll bandage, to fix the stripes, but according to the common rules of the art. Within twenty or thirty minutes, the bandage is hardened, and the patient can, without inconvenience, be placed in bed. In cases of amputation of fingers or toes, the application of gypsum bandages being simpler, requires no particular

description. The only really dangerous symptom which is now to be feared, is after-bleeding, which, if venous, will soon stop from the even pressure, partly of the 'contentiv-bandage,' and partly from the bandage surrounding the stump; but if the bleeding is arterial, and cannot be stopped by the tourniquet, ice in a bladder should be tried, and 'astringentia and sulphuric acid,' failing which, the gypsum bandages must be removed.

"An inconvenience may arise from continued severe pain, which the patient sometimes suffers, both after gypsum, as well as starch bandages. In two such cases have we been prevailed upon to remove the bandages, but without being able to discover any reasonable cause for unusual pain. In two other cases, the bandages have been allowed to remain untouched, notwithstanding many complaints, and, on the final removal, no inconvenience followed. I must add that, in these cases, no pressure took place from too tight a bandage, as the limb, from every side, being equally pressed, had, as is always the case, diminished below the normal size. The formation of an abscess is possible, but the matter should easily escape by the fine canal formed by the ligatures. In one case, we put a hank through the abscess, and, in two weeks, saw it filled up with 'granulation.'

"Although I have not seen erysipelas, mortification, or other complications take place under this system, yet, should they occur, they could be treated in the usual way, retaining, in part, the gypsum bandage. On the third day, it is usual to loosen the ligatures, as also to discharge any matter, &c., that may have gathered; but by this system, it is only necessary to cut one or two holes in the bandage, where it is moist, opposite the margin of the wound, which can be easily done by raising the bandage by pincers. If the openings have been made at the right place, the ligatures will appear in the line of the amputation wound, and can easily be drawn out. By gentle pressure, the matter can be removed as well as cleansing by injection, through these openings, which, if desirable, can be afterwards covered with a small compress, anointed with some simple salve; during the following days it may be necessary to make a couple of openings besides, for the removal of the sutures; but this should not be hurried, for the longer the bandages can remain unmoved, the surer is it that the healing 'per primam intentionem' is advanced.

"To ascertain if all is going on well, in three weeks, that entire part of the bandage that covers the face of the stump, can be cut away, the circular portion of the bandage that remains will prove a protection and support to the newly formed edges of the healing wound. Generally, in most cases, the bandages can remain unmoved from three to five weeks, when the wound will be found well healed."

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26. *The Alcoholic Treatment of Wounds*.—MR. A. PRICHARD, of Bristol, states (*British Medical Journal*, Nov. 3, 1860) that his attention was called a few months ago to a pamphlet published in Paris by M. Batailhé and Guillet, bearing the title *Alcohol and Alcoholic Preparations in Surgery*, in which the authors sum up the advantages of applying strong alcoholic compounds to recent and other wounds in the following way, viz., that they check or prevent suppuration, and consequently phlebitis and pyæmia, and that they favour union by the first intention; and the facts brought forward, although few and meagre, induced me to give the plan a trial; and I will briefly narrate some of my cases.

The particular alcoholic preparation which was recommended was the compound tincture of aloes, or, as the French call it, *elixir de longue vie*, and it is made of aloes, myrrh, saffron and spirit; and it is said to be most valuable in contused and lacerated wounds, involving various tissues, being particularly useful in lacerated wounds of the hand, when tendinous, muscular, cutaneous, and osseous tissues are often damaged together. But, that there may be no questions about originality or priority of the discovery of this method of treatment, I will quote a paragraph on the subject from that most entertaining and valuable work, John Bell's *Surgery*, published about sixty years ago. He says: "The process of saving the hand of a workman, when thus mangled with his tools, is this: You are to take up the arteries first, then return the bones into the wound, if they project; stitch the skin over them, draw together the open